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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,566	09/20/2000	Xavier Banchelin	032326-093	1730

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EXAMINER

NGUYEN, MINH DIEU T

ART UNIT PAPER NUMBER

2137

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/646,566

Applicant(s)

BANCHELIN ET AL.

Examiner

Minh Dieu Nguyen

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 7-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. The preliminary amendment filed September 20, 2000 has been entered with the cancellation of claims 13-14.

Claims 1-12 and 15-17 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) As to claim 1, the phrases "the protected management", "the number of units", "the following steps", "the unit counter", "the total units", and "the number of bits" lack antecedent basis.

b) As to claim 3, the phrases "the following steps", "the content of the first area", "the number of not stored bits (L)" and "the number of units (n)" lack antecedent basis.

Lacking antecedent basis appears on other claims as well, please make appropriate correction.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-6 and 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van de Pavert, US Patent 5,914,471 in view of Kanemaru, US Patent 5,280,438.

a) **As to claim 1**, Van de Pavert discloses a method and apparatus for recording usage data of card operated devices wherein a counter (Fig. 2, element 37) in an electrically erasable and programmable memory (Fig. 2, element 30) records number of units consumed by users comprising: dividing unit counter into at least two memory areas (col. 13, lines 7-9); storing at least one bit per at least one consumed unit into a first memory area (col. 13, lines 10-14); storing a value corresponding to total units consumed in a second memory area (col. 13, lines 9-10) and updating the second area only when the number of units consumed exceeds or attains the number of bits not stored in the first area (col. 13, lines 19-30; Table 1). However, Van de Pavert does not disclose the condition for updating the second area.

Kanemaru discloses a non-volatile counter in which data is stored in erasable and writable semiconductor non-volatile memory devices, a counter which has plurality of memory cells for memorizing the count value (col. 1, lines 46-48) and the updating step occurs when the number of pulses (n) is equal or greater than predetermined bits (m) (Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time the invention to employ the use of certain condition to update the information, as Kanemaru teaches, in the system of Van de Pavert so as to improve the reliability of the counting value.

b) **As to claim 2**, Kanemaru discloses a method of managing a counter wherein the units consumed are recorded in the first area cyclically (col. 10, lines 57-62).

c) **As to claim 3**, Van de Pavert discloses a management method wherein an operation of recording n units consumed comprising: reading content of the first area, and comparing the number of not stored bits (L) in the first area with the number of consumed units (n) to be recorded; if L is greater or equal to the to be recorded number n , storing n in the first area; if L is less than n , storing L in the first area and recording ($n-L$) in the second area by performing an operation of updating this area (Table 1), erasing the first area (col. 5, lines 46-50).

d) **As to claim 4**, Van de Pavert discloses a management method wherein an operation of updating the second area comprising writing a new coded counter value equal to the current value to which the number of stored bits in the first area and the (n-L) remaining consumed units to be stored are added (Table 1).

e) **As to claim 5**, Kanemaru discloses a management method wherein the updating comprising a prior step of recording indicator information signifying that an updating is currently being carried out (Fig. 4, elements 150, 600).

f) **As to claim 6**, the examiner takes official notice that use of backing up memory and both, the original and back-up memory, has a field for checking the integrity of the both contents are quite well known in the computer and communications systems.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of backing up in order to strengthen the reliability of data and the use of checksum or cyclic redundancy code for checking integrity so as to make sure the information in both contents matches, nothing had been modified either intentionally or unintentionally.

g) **As to claim 15**, please see addressed above claim 1 with further information that Kanemaru discloses a memory area having a predetermined bit capacity (col. 8, lines 61-66).

h) **As to claim 16**, Van de Pavert discloses the security module (Fig. 2, element 3) is contained in a terminal (Fig. 2, element 2) which is a telephony terminal (Abstract) that manages the consumed units (col. 13, lines 63-67 to col. 14, lines 1-21).

Allowable Subject Matter

6. Claims 7-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts of Van de Pavert and Kanemaru do not disclose claimed method wherein recording n units consumed comprising verifying the state of counter; wherein the recovery operation comprising determining at which step the abnormality occurred; further defining different circumstances, then performing, according to the circumstances, the steps of updating at least one of the back-up area, the second area and the first area; wherein the step of recording signifying a failure in reading or writing, deactivating the failed area; reading the information signifying a failure at each new cycle and directly recording the units consumed in a coded manner by an operation of updating the second area.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

a) US Patent 6,236,591 to Pockrandt discloses method for reliably changing a value stored in a nonvolatile memory and circuit configuration for this purpose.

b) US Patent 6,314,155 to Shona et al. discloses counting circuit with rewritable nonvolatile memory and counting method.

c) US Patent 5,745,864 to Hosoe et al. discloses vehicular information storage device and power outage resistant storage system and method for the same.

d) US Patent 5,715,431 to Everett et al. discloses tamper proof security measure in data writing to nonvolatile memory.

e) US Patent 5,479,637 to Lisimaque et al. discloses method and device for updating information elements in a memory.

f) US Patent 5,023,813 to Brown, III discloses nonvolatile memory usage.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 703-305-9727. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 703-306-3036. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2137

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
mdn
8/6/04

Andrew Caldwell
Andrew Caldwell